2:Richards E-5 (1930-1934)1939
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241 trial and error lines as regards the cultivation of these mounds.
242 In April 1933 at Munuka, near Citimukulu, the headman had about 300 beds of cassava which looked stunted. The villagers had moved out into *imitanda* in the bush to look for new soil. At Shikafyola, near Nkula, I saw, in November 1933, soil turned up by the river and then abandoned. It was found to have lumps of clay inside and said to be too hard to work.[1]

At Kacienja, near Shiwa Ndandu, I saw the headman planting some of his mounds with cassava in 1930, and trying each strip in turn apparently, until I visited him again in 1933 and found him still unsuccessful. These are admittedly only isolated observations made during years when the Government was making the planting of cassava compulsory, and when the natives were given no special instructions as to the handling of what was still, to them, a somewhat unfamiliar crop. But there is additional evidence to show that failure is not unexpected when mounds are planted. Natives use a special word, *ukupansa*, which means to 'try the soil'. It is common when building a new village to dig up one hillock or two in the surrounding land and to plant it with different crops. If they bear well, the soil is regularly hoed next year. In November 1933 Chief Nkula told me he had a few *mputa* round the village, and was starting to try the soil by the river for cassava. 'We shall
●813 keep on looking for soil on which to plant,' he said.[2] At Kungu
241 village, near Kasama, an enterprising old lady, who was employing
242 two male labourers on the proceeds of the sale of milk, had the whole slope of a hill dug with mounds on which she was putting ground-nuts, beans, maize, and cassava. She called this 'to try at random' (*ukueshya pambilibili*) and told me that as a result of her experiment she was convinced that nothing but sweet potatoes would succeed on that ground. Bemba also frequently plant maize on new mounds where it cannot succeed and hence they are bound to fail in the first year.

As regards the millet gardens failure is rarer, and a man's choice of soil much freer, but I have seen half-cleared gardens abandoned because 'the trees did not seem thick enough where I began to cut', and in March 1934 I noted that two out of the twelve gardens
[837] made by the Citimukulu failed completely. Some natives said that it was because the owner of the garden, one of the chief's wives, had committed adultery, and others that the millet must have been
sown on top of a site long abandoned.

[1] *Bumba mukati. Kwalikosanganshi.* [2] *Twakulaeshya uko tukalima.*

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sown on top of a site long abandoned. Apparently they knew some one had once grown a garden here, but they did not know whether the soil would be exhausted. They said, 'We thought we would try.'[1]

I do not know whether such conscious experimentation in soil selection is common among Bantu cultivators. Trial and error methods seem in keeping with many of the temperamental characteristics of the Bemba, as these are expressed in a number of different activities. They appear to the European to act on sudden impulses in many spheres of life.[2] It is not thought at all unusual for a man to dig three or four garden mounds in the bush and then desist, and I have seen four maize plants growing in a clump on the edge of a path with no better explanation than, 'The owner was walking along with seeds in his hand and he said, "Let's plant some here!" and he found they came up well', or, on another occasion, 'I do not know why he hoed there. I expect it came into his heart!' Some of the apparent testing of ground can probably be accounted for by sudden whims of this sort on the part of the cultivator.

But there is no doubt also that lack of precision in the methods of soil selection has also to be reckoned with. A native who can choose quite successfully the patch of bush which is likely to grow most millet, finds it more difficult to plant the five or six necessary crops he has to grow in the limited space he has available on the village beds, more especially as this ground has usually been allotted to him on more or less sociological grounds—his position in a family group, or the site of his hut, for instance. For this reason a certain amount of trial and error is probably a definite characteristic of the agricultural system of the tribe.

Incidence of Knowledge of Soil Selection.

This short description of Bemba methods of land selection shows us that there is a certain body of knowledge on the subject actually existent in the community, in spite of the regular acceptance of trial and error methods, and the fact that these people seem behind other tribes in the territory in this respect. Compare the information given in a primer of tropical agriculture with that extracted, with infinite patience, from an old Bemba in the course of many

[1] *Twati 'katueshye'.*

[2] Cf. The temperamental characteristics of the Bemba described in Chap. I.